



United Nations  
Educational, Scientific and  
Cultural Organization

Organisation  
des Nations Unies  
pour l'éducation,  
la science et la culture

Organización  
de las Naciones Unidas  
para la Educación,  
la Ciencia y la Cultura

Организация  
Объединенных Наций по  
вопросам образования,  
науки и культуры

منظمة الأمم المتحدة  
للتربية والعلم والثقافة

联合国教育、  
科学及文化组织

## Culture Sector

H. E. Mr Bassam Said Freiha  
Ambassador Extraordinary and  
Plenipotentiary,  
Permanent Delegate  
Permanent Delegation of Belize to  
UNESCO  
UNESCO House

WHC/74/204.2/MP/mgl/99

27 May 2009

**Subject: Final report on the World Heritage Centre / IUCN mission to the Belize Barrier Reef System (23 – 28 March 2009)**

Dear Ambassador,

Please find attached the final report on the World Heritage Centre / IUCN mission to the Belize Barrier Reef System World Heritage property that took place from 23 to 28 March 2009. The draft decision proposed for consideration by the World Heritage Committee is based on the findings presented in this report and please note that the property is proposed to be inscribed on the danger list.

Should you have any questions or comments on this report, please do not hesitate to contact us. Ideally, any comments on behalf of the State Party should be received by the World Heritage Centre well before the World Heritage Committee meeting, which begins on 22 June 2009.

Please accept, dear Ambassador, the assurances of my highest consideration.

Yours sincerely,

Francesco Bandarin  
Director  
World Heritage Centre

cc : Belize National Commission for UNESCO  
World Heritage Committee of the CZMA

# Report on the Reactive Monitoring Mission to Belize Barrier Reef Reserve System, Belize 23 to 28 March 2009<sup>1</sup>

---

## Table of Contents

ACKNOWLEDGEMENTS	2
EXECUTIVE SUMMARY AND LIST OF RECOMMENDATIONS	3
1. BACKGROUND TO THE MISSION	5
1.1 Inscription history	5
1.2 Inscription criteria and World Heritage values	5
1.3 Integrity issues raised in the IUCN evaluation report at time of inscription	6
1.4 Examination of the State of Conservation by the World Heritage Committee & its Bureau	6
1.5 Justification of the mission	6
2. NATIONAL POLICY FOR THE PRESERVATION AND MANAGEMENT OF THE WORLD HERITAGE PROPERTY	7
2.1 Protected area legislation:	7
2.2 Institutional framework:	7
2.3 Management Structure	9
2.4 Response to the recognition of values under international treaties and programmes	10
3. IDENTIFICATION AND ASSESSMENT OF ISSUES / THREATS	11
3.1 Management effectiveness:	11
3.2 Nature and extent of threats to the property.	11
Development	11
Illegal fishing and poaching	13
Turtle nest poaching	13
Invasive species	13
Coral transplantation	13
Lack of activity within instances established for local participation for PA management.	13
Planned development of Green Reef Environmental Institute on Bacalar Chico	14
Hydrocarbon exploration – exploitation	14
Natural threats or related to climate change	14
3.3 Positive and negative developments in the conservation of the property since the last report to the World Heritage Committee	15
4. ASSESSMENT OF THE STATE OF CONSERVATION OF THE PROPERTY	16
5. CONCLUSIONS AND RECOMMENDATIONS	16
5.1 List of recommendations	17

---

<sup>1</sup> Prepared by Eduard Müller, University for International Cooperation, Costa Rica and Vice-Chair for Mexico, Mesoamerica and Hispanic Caribbean, World Commission on Protected Areas, IUCN and Marc Patry, World Heritage Center, UNESCO, Paris.

## **ACKNOWLEDGEMENTS**

The mission team would like to acknowledge the support and assistance of the following organizations (in alphabetical order):

- Belize Audubon Society
- Belize National Commission for UNESCO
- Belize Tourism Board
- Belize Tourism Industry Association
- Coastal Zone Management Authority and Institute
- CZMAI World Heritage Sub Committee
- Fisheries Department
- Forestry Department
- Green Reef
- Healthy Reefs for Healthy People Initiative / Smithsonian Institution
- Southern Environmental Association

Without their support and dedication the mission would not have been possible.

## EXECUTIVE SUMMARY AND LIST OF RECOMMENDATIONS

The UNESCO/IUCN Monitoring Mission to the Belize Barrier Reef Reserve System World Heritage property in Belize was undertaken from 23 to 28 March 2009. The overall impression is that there is no clear recognition and understanding of the management implications of a World Heritage property. There is apparently no difference in treatment of areas within and outside of the World Heritage property except for three of the seven components which are managed as national parks. It is to be noted that the recently approved National Protected Areas Systems Plan includes hardly any reference to World Heritage, which is mentioned sparsely throughout the text and in some cases in a confusing manner. The main impression was that an excessive amount of development has been going on within the mangrove islands of the site. The government appears to be managing mangrove islands as unprotected national public lands, and not as part of the World Heritage property. As a result, the government has been selling and leasing mangrove islands, though apparently, quite a lot of development on the islands already existed at the time of inscription. Given that the Outstanding Universal Value of the site is intimately related to healthy mangrove ecosystems and that indeed, mangrove ecosystems are specifically mentioned in the nomination and inscription documents, the business-as-usual scenario cannot continue without irremediably compromising the property's Outstanding Universal Value.

This situation was especially clear in South Water Caye Marine Reserve, inscribed as part of the World Heritage property due in part to the existence of a unique ecosystem found. Two of these cayes have been severely impacted in the last years by clear-cutting of the mangroves and filling with corals and sand, apparently for real-estate purposes. Marine areas just a few meters away had clear signs of dredging, apparently where the landfill material had been extracted. Throughout other cayes (small sandy islands formed on the surface of coral reefs), mangrove cutting and development was also observed. In some cayes, access lines have already been cleared into the mangroves for future clearing. In Bacalar Chico National Park, just recently, only the social uproar managed to stop the sale to developers of crown land within the national park, indicating that there is no real effectiveness of the legal protection of the World Heritage property. The Minister of Environment can de-gazette protected areas with relative ease and little control. On February 2<sup>nd</sup>, Fisherman's Caye (also called Pelican Caye, Cat Caye or Big Cat Caye), was put up on the Department of the Environment website for environmental impact assessment for the Yum Balisi development (<http://www.doe.gov.bz/EIAs/YumBalisi.html> ). It is apparently still possible with the current government for large developments to take place within the World Heritage property.

Other problems are found throughout the BBRRS affecting the Outstanding Universal Value such as overfishing due to insufficient patrolling capacity and/or lack of zoning. No-take zones are currently judged to be small and insufficient. Invasive species, mainly *Casuarina*, affecting the littoral forest, could be found in the land portions of all parts of the property visited, without any apparent strategy for control.

The institutional framework shows clear signs of weakness due to lack of functioning coordination mechanisms. Mangrove areas, even if just sprouting out of shallow waters are under the jurisdiction of the Forestry Department, despite its lack of capacity to attend to these areas due to lack of boats and resources. The marine areas surrounding the mangroves are under the Fisheries Department but they do not have any control of what happens with the mangroves, even if the effects of cutting and infilling mangrove areas impact directly the reefs surrounding them. The Mining Department has been allowing dredging within the World Heritage property. Prior efforts in establishing institutions to solve this lack of coordination have not been pursued, such as the Coastal Zone Management Authority, which was deactivated in the last years. The National Protected Area System Plan (NPASP) was adopted in November 2007. This plan establishes the National Protected Areas Commission to ensure coordinated action but to date it has only one position that during our visit was vacant. There is only one person at the national government level responsible for marine protected areas, with a similarly modest budget.

Co-management of protected areas is common practice. NGOs are given full authority to manage sites and to raise the funds to do so and most management activities are carried out by them. In their efforts to raise funds from tourism, sometimes future projects come across as somewhat excessive in relation to their impacts on the property.

Concessions for oil and gas exploration could soon pose a potential threat to the different components of the World Heritage property, since all the coast has been mapped in concession blocks, apparently not excluding the World Heritage property.

The mission team was disappointed in that, except for a brief meeting with the Minister of Tourism, no senior government representatives met the mission, thus not allowing for discussion of the findings.

## Recommendations:

The mission recommends that the State Party of Belize be requested to take action and to report to the World Heritage Committee by February 1st 2010 on the following issues:

- Adequate maps should be drawn showing clear limits to all seven components of the property.
- Establishment of a permanent moratorium for sale/lease of lands in World Heritage property.
- The moratorium on mangrove cutting, declared in May 17, 2008 should be made permanent throughout the whole extent of the World Heritage property.
- No dredging should be allowed within the World Heritage property.
- Establishment of clear and strict limits to development rights and environmental management regulations within existing private land within the property to ensure the long term conservation of the Outstanding Universal Value of the World Heritage property.
- The complete cadastre info (land ownership) for all lands within World Heritage property including mangrove islands should be made publicly available, in easily accessible format.
- Legislation that assures the protection and maintenance of the Universal Outstanding Value of the whole of the World Heritage property, and its component parts, should be in place.
- A co-management framework/law should be put into place for the property.
- A statutory National Protected Areas Service or similar coordination unit between the different agencies should be established, as recommended within the National Protected Area Systems Plan to achieve a uniform approach to dealing with protected areas in the country and especially in the World Heritage property.
- Zoning should be completed for all sites, with particular emphasis on establishing ecologically significant no-take zones. In terms of zoning in all marine components, the no take zones should be greater allowing for real effectiveness for protection and replenishment of fin fish, conch and lobster.
- Clear guidelines should be established of what management or visitor infrastructure can be built within the World Heritage sites.

The mission also recommends that:

- The National Protected Agency should be sufficiently staffed.
- Control programs should be in place to eradicate invasive species.
- Any artificial relocation of corals should be done according to strict scientific criteria
- Joint international efforts should be undertaken to reduce the river sediments coming into the World Heritage sites from mainland and neighboring countries.

Based on the absence of dedicated efforts in dealing with the issues mentioned above, the mission concluded that the property is faced with specific and proven imminent danger, and should **be considered for immediate inscription on the List of World Heritage in Danger.**

## 1. BACKGROUND TO THE MISSION

### 1.1 Inscription history

1.1.1 The Belize Barrier Reef Reserves System (BBRRS) was originally was nominated for inscription in 1995 and then with the recommendations incorporated, approved and inscribed in 1996. It comprises seven components within the Belize Barrier Reef:

764-001	Bacalar Chico national park and marine reserve:	10700 ha
764-002	Blue Hole	4100 ha
764-003	Half Moon Caye Natural Monument	3900 ha
764-004	South Water Caye Marine Reserve	29800 ha
764-005	Glovers Reef Marine Reserve	30800 ha
764-006	Laughing Bird Caye National Park	4300 ha
764-007	Sapodilla Cayes Marine Reserve	12700 ha

### 1.2 Outstanding Universal Value and criteria

1.1.2 The Committee inscribed the Belize Barrier Reef Reserve System under natural criteria (vii), (ix) and (x) as the largest barrier reef in the Northern hemisphere, and as a serial nomination consisting of seven component parts. The Reef illustrates a classic example of reefs through fringing, barrier and atoll reef types<sup>2</sup>. Specifically, the property was inscribed for the following reasons:

*(vii) contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance;* According to the IUCN evaluation, the site was inscribed for being “one of the most pristine reef ecosystems in the Western Hemisphere... The barrier reef and atolls exhibit some of the best reef growth in the Caribbean.”

*(ix) be outstanding examples representing significant ongoing ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals;*

“The site is unique for its array of reef types within one, relatively self-contained area provides a classic example of the ecological evolutionary history of reefs through fringing, barrier and atoll reef types. The geological history of the reefs and coastline of Belize differs from that of the Caribbean islands, the other main area of reefs in the region. The history of the Belize Barrier Reef Complex illustrates the mayor role that reefs have played in the history of humankind. Such interaction between human and reefs is particularly evident in Belize today, where a large part of the economy is dependent on the Barrier Reef through fisheries and tourism.

*(x) contain the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation.*

“The site provides an important habitat for a number of internationally threatened marine species. Remaining pristine areas of the cays, with remnant stands of littoral forest, provide critical habitat for several endemic and migratory bird species.”

To be deemed of outstanding universal value, a property must also meet the conditions of integrity and/or authenticity and must have an adequate protection and management system to ensure its safeguarding.

---

<sup>2</sup> <http://whc.unesco.org/en/list/764/>

### **1.3 Integrity issues raised in the IUCN evaluation report at time of inscription**

1.3.1 At the time of inscription the following factors affecting the integrity of the property were noted by IUCN:

- Overharvesting of Marine Resources:
  - Declining commercial fish stocks (fin fish, conch and lobster) due to overexploitation.
  - Reduction in numbers of marine turtles and manatees due to hunting.
- Coastal Development and Tourism:
  - Effluents and sediments from urban settlement and agriculture impacting the reef.
  - Tripling of tourists in the decade prior to inscription.
- Industrial Development:
  - Oil exploration with permits for drilling given by Government of Belize near Glover Atoll.

1.3.2 As a solution to the problems of growing pressure from these three factors, it was stated that the GEF project “Sustainable Development and Management of Biologically Diverse Coastal Resources” initiated in 1993 was centered on the Coastal Zone Management Unit within the Fisheries Department that was attempting to coordinate all activities in the coastal zone, undertaking environmental impact statements, preparing zoning and management plans, training of staff and establishing various regulatory mechanisms. At the time there was concern that the nomination might be premature since much of the legal and institutional framework was not in place. Apparently these concerns have proven to be true.

### **1.4 Examination of the State of Conservation by the World Heritage Committee and its Bureau**

1.4.1 When the property was inscribed, much of the institutional and legal frameworks were “currently being developed”, such as the National Protected Areas System Plan which 10 years later was still in a draft version. “An overall coordinating mechanism will also be developed, possibly in the form of a Protected Areas Coordinating Unit”, which is still not properly functioning as a one-unit approach.

1.4.2 At the time of inscription, it was reported that “Potential problems include over-exploitation of reef resources by the fishing and tourist industries. Other major disturbances are habitat alteration caused by coastal development; nutrient enrichment from run-off of agrochemicals and sewage pollution; erosion of the shoreline by removal of vegetation; and choking of corals by siltation resulting from dredging and sand mining.” These problems are still present today.

### **1.5 Justification for the mission**

1.5.1 The World Heritage Centre and IUCN learned of extensive mangrove cutting and infilling in early 2008 in Pelican Caye (See Annex II), within one of the protected areas, triggering this reactive monitoring mission. In October 2008, the World Heritage Center was further informed of the impending sale of 3,000 hectares of land within the property, to private developers. The sale was cancelled after a major public outcry. The World Heritage Center received the State of Conservation Report from the State Party on 18 February 2009.

1.5.2 The mission was of reactive nature, based on documents received by the World Heritage Center denouncing the destruction within the World Heritage Property (See Annex II). A request to inscribe the BBRRS onto the list of World Heritage in Danger as a result of climate change and for protective measures and actions was filed in November 2004 by the Belize Institute of Environmental Law and Policy (BELPO). In this report, the existence of several non climate change related threats was indicated including overfishing, loss of fish spawning aggregations, increased growth of macroalgae, illegal fishing, pollution, coral diseases and increased coastal development/tourism.